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10/715,332	11/17/2003	Junichi Ito	OOCL-144 (US-P1880)	2393

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EXAMINER	
MISLEH, JUSTIN P	

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2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/715,332	ITO ET AL.	
	Examiner	Art Unit	
	JUSTIN P. MISLEH	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 28 and 30 - 35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *6, 9, 15, 18, 24, 27, and 32 - 35* is/are allowed.

6)☒ Claim(s) *1 - 5, 7, 8, 10 - 14, 16, 17, 19 - 23, 25, 26, 28, 30, and 31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to independent Claims 1, 11, 20, 30, and 31 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1 – 5, 7, 8, 11 – 14, 16, 17, 20 – 23, 25, and 26, and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al. (US 6,771,896 B2) in view of Hwang et al. (US 6,661,454 B1) in further view of Sobol (US 2002/0071035 A1).

4. For **Claim 1**, Tamura et al. disclose, as shown in figures 9 – 11(c), a print system formed of a digital camera (100) and a printer (250), each including control means for controlling operations thereof (main microcomputer 8/ main microcomputer 222, respectively), functionally connected one to another (see figure 9);

wherein the digital camera (100) has a configuration wherein data forming an image which is to be printed with the printer can be supplied to the printer (see column 16, line 58 – column 17, line 10), a secondary battery (not shown; although described as "a battery in the electronic camera"), which is a power source thereof, wherein a state of the secondary battery

can be displayed on an display unit (35; see column 17, lines 17 – 31 and figures 9 – 11(c)), under control of the control means thereof (main microcomputer 8; see figure 10), wherein an image to be printed can be displayed on another display unit (18; see figure 9), under control of the control means thereof (main microcomputer 8; see figure 10);

and wherein the printer (250) has a configuration wherein an image can be printed based upon the image data supplied from the digital camera (see column 16, line 58 – column 17, line 10), and electric power can be supplied to the digital camera (see column 17, lines 8 – 10), under control of the control means thereof;

and wherein the digital camera (100) has a configuration wherein in the event that the digital camera and the printer are functionally connected one to another (see figure 9), a display is displayed on a predetermined display unit thereof for notifying the state of the secondary battery (see figures 11(a) – figure 11(c) and column 17, lines 45 – 60).

While Tamura et al. disclose supplying power to the digital camera (100) via the printer (250), as described in column 17 (lines 8 – 10); Tamura et al. do not specify that the battery within the digital camera can be charged by power supplied by the printer. Furthermore, Tamura et al. do not specify wherein the display unit, which displays the state of the secondary battery, and the display unit, which displays the image to be printed, are the same predetermined display unit and wherein that predetermined display unit is a liquid crystal monitor.

With respect to the predetermined display unit, Hwang et al. also disclose a digital camera that displays a captured image and a battery state indicator. More specifically, Hwang et al. show the digital camera including the image display section (24) in figure 1 and shows details of the image display section (24) in figures 2(a) - 2(c). As clearly shown, in figures 2(a) - 2(c),

the image display section (24) is a single predetermined image display unit that both displays the state of the camera battery (top right corner) and a captured image (bottom left corner). Furthermore, Hwang et al. teach that the predetermined display unit (24) may be a liquid crystal monitor (see column 4, lines 8 – 17). A key advantage of the invention, according to Hwang et al., is to provide a digital camera having a simple, easily understood visual indication of the camera status (see column 2, lines 35 – 27).

Thus, based on the above-teachings of Hwang et al., at the time the invention was made it would have been obvious to one with ordinary skill in the art to have merged the battery status indicator (35) and the image display section (18) of Tamura et al. into a single predetermined liquid crystal display unit.

With regard to the charging of the camera battery, Sobol also disclose a digital camera functionally connected to a printer. Specifically, Sobol teaches, as shown in figure 3, a digital camera (200) functionally connected to a printer (100), wherein the digital camera has a battery (258) and wherein the battery (258) is charged via electric power supplied by the printer (see figure 4 and paragraph 40).

Hence, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated wherein the battery within the digital camera can be charged by power supplied by the printer (as taught by Sobol) in the printer system (disclosed by Tamura et al.) for the advantage *reducing interruptions during the transfer of image data from the digital camera to the printer* (see Sobol; paragraph 44).

5. For **Claim 11**, Tamura et al. disclose, as shown in figures 9 – 11(c), a print system formed of a digital camera (100) and a printer (250), each including control means for

controlling operations thereof (main microcomputer 8/ main microcomputer 222, respectively), functionally connected one to another (see figure 9);

wherein the digital camera (100) includes: image data transmitting means (45) for supplying an image data forming an image which is to be printed with the printer (250), of the image data acquired by an image-taking means (3; see figure 1), to the printer (see column 16, line 58 – column 17, line 10), under control means thereof and the control means of the printer (main microcomputer 8/222, respectively), communicating with each other; a secondary battery (not shown; although described as "a battery in the electronic camera"), which is a power source thereof, a battery monitoring circuit unit for detecting and monitoring a state of the secondary battery, and supplying the detected state to the control means of the digital camera (see column 17, lines 17 – 31, and figures 10 – 11(c)); display means (35) for displaying a state of the secondary battery on a display unit (35; see column 17, lines 17 – 31 and figures 10 – 11(c)) under control of the control means of the digital camera (main microcomputer 8; see figure 10), and another display unit (18; see figure 9) for displaying an image to be printed, under control of the control means of the digital camera (main microcomputer 8; see figure 10); and an operation unit (32; see figure 9) for receiving operations performed by the user;

and wherein the printer (250) includes: image data receiving means (227) for receiving image data supplied from the digital camera (see column 17, lines 11 – 16), under control means thereof and the control means of the digital camera, communicating with each other; printing means having a configuration wherein an image can be printed based upon the received image data (see column 16, line 58 – column 17, line 10), and electric power supply circuit having a

configuration wherein electric power can be supplied to the digital camera (see column 17, lines 8 – 10), under control of the control means thereof;

and wherein the digital camera (100) has a configuration wherein the information with regard to the state of the secondary battery detected and acquired by the battery monitoring circuit unit at the time of the start of the print system (see figure 10) is display on the predetermined display unit under control of the control means thereof (see figures 11(a) – figure 11(c) and column 17, lines 45 – 60).

While Tamura et al. disclose supplying power to the digital camera (100) via the printer (250), as described in column 17 (lines 8 – 10); Tamura et al. do not specify that the battery within the digital camera can be charged by power supplied by the printer. Furthermore, Tamura et al. do not specify wherein the display unit, which displays the state of the secondary battery, and the display unit, which displays the image to be printed, are the same predetermined display unit and wherein that predetermined display unit is a liquid crystal monitor.

With respect to the predetermined display unit, Hwang et al. also disclose a digital camera that displays a captured image and a battery state indicator. More specifically, Hwang et al. show the digital camera including the image display section (24) in figure 1 and shows details of the image display section (24) in figures 2(a) - 2(c). As clearly shown, in figures 2(a) - 2(c), the image display section (24) is a single predetermined image display unit that both displays the state of the camera battery (top right corner) and a captured image (bottom left corner). Furthermore, Hwang et al. teach that the predetermined display unit (24) may be a liquid crystal monitor (see column 4, lines 8 – 17). A key advantage of the invention, according to Hwang et

al., is to provide a digital camera having a simple, easily understood visual indication of the camera status (see column 2, lines 35 – 27).

Thus, based on the above-teachings of Hwang et al., at the time the invention was made it would have been obvious to one with ordinary skill in the art to have merged the battery status indicator (35) and the image display section (18) of Tamura et al. into a single predetermined liquid crystal display unit.

With regard to the charging of the camera battery, Sobol also disclose a digital camera functionally connected to a printer. Specifically, Sobol teaches, as shown in figure 3, a digital camera (200) functionally connected to a printer (100), wherein the digital camera has a battery (258) and wherein the battery (258) is charged via electric power supplied by the printer (see figure 4 and paragraph 40).

Hence, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated wherein the battery within the digital camera can be charged by power supplied by the printer (as taught by Sobol) in the printer system (disclosed by Tamura et al.) for the advantage *reducing interruptions during the transfer of image data from the digital camera to the printer* (see Sobol; paragraph 44).

6. For **Claim 20**, Tamura et al. disclose, as shown in figures 9 – 11(c), a digital camera (100) employed for a print system formed of the digital camera (100) and a printer (250), each including control means for controlling operations thereof (main microcomputer 8/ main microcomputer 222, respectively), functionally connected one to another (see figure 9), the digital camera (100) comprising:

image taking means (3; see figure 1) for obtaining image data corresponding to a subject;

image data transmitting means (45) for supplying the image data forming an image which is to be printed with the printer (250), of the image data acquired by the image-taking means (3; see figure 1), to the printer (see column 16, line 58 – column 17, line 10), under control means thereof and the control means of the printer (main microcomputer 8/222, respectively), communicating with each other;

a secondary battery (not shown; although described as "a battery in the electronic camera"), which is a power source thereof,

a battery monitoring circuit unit for detecting and monitoring a state of the secondary battery, and supplying the detected state to the control means of the digital camera (see column 17, lines 17 – 31, and figures 10 – 11(c));

display means (35) for displaying a state of the secondary battery on a display unit (35; see column 17, lines 17 – 31 and figures 10 – 11(c)) under control of the control means of the digital camera (main microcomputer 8; see figure 10), and another display unit (18; see figure 9) for displaying an image to be printed, under control of the control means of the digital camera (main microcomputer 8; see figure 10); and

an operation unit (32; see figure 9) for receiving operations performed by the user.

While Tamura et al. disclose supplying power to the digital camera (100) via the printer (250), as described in column 17 (lines 8 – 10); Tamura et al. do not specify that the battery within the digital camera can be charged by power supplied by the printer. Furthermore, Tamura et al. do not specify wherein the display unit, which displays the state of the secondary battery, and the display unit, which displays the image to be printed, are the same predetermined display unit and wherein that predetermined display unit is a liquid crystal monitor.

With respect to the predetermined display unit, Hwang et al. also disclose a digital camera that displays a captured image and a battery state indicator. More specifically, Hwang et al. show the digital camera including the image display section (24) in figure 1 and shows details of the image display section (24) in figures 2(a) - 2(c). As clearly shown, in figures 2(a) - 2(c), the image display section (24) is a single predetermined image display unit that both displays the state of the camera battery (top right corner) and a captured image (bottom left corner). Furthermore, Hwang et al. teach that the predetermined display unit (24) may be a liquid crystal monitor (see column 4, lines 8 – 17). A key advantage of the invention, according to Hwang et al., is to provide a digital camera having a simple, easily understood visual indication of the camera status (see column 2, lines 35 – 27).

Thus, based on the above-teachings of Hwang et al., at the time the invention was made it would have been obvious to one with ordinary skill in the art to have merged the battery status indicator (35) and the image display section (18) of Tamura et al. into a single predetermined liquid crystal display unit.

With regard to the charging of the camera battery, Sobol also disclose a digital camera functionally connected to a printer. Specifically, Sobol teaches, as shown in figure 3, a digital camera (200) functionally connected to a printer (100), wherein the digital camera has a battery (258) and wherein the battery (258) is charged via electric power supplied by the printer (see figure 4 and paragraph 40).

Hence, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated wherein the battery within the digital camera can be charged by power supplied by the printer (as taught by Sobol) in the printer system (disclosed by

Tamura et al.) for the advantage *reducing interruptions during the transfer of image data from the digital camera to the printer* (see Sobol; paragraph 44).

7. As for **Claims 2, 12, and 21**, Tamura et al. disclose, as shown in figures 11(a) – 11(c), an example of battery residual display section (35) during a printing operation. Tamura et al. also disclose, as stated in column 16 (lines 58 – 64), "The image display section 18 displays a subject when photographing, and in addition, it can display prepared print information when inputting and preparing the print information, and it can also display received printer state information when the printer state information has been received from the printer side." Therefore, it is clear Tamura et al. disclose wherein in the event that a display is displayed on the predetermined display unit of the digital camera for notifying the state of the secondary battery under control of the control means thereof, and a predetermined operation for preparation for printing an image has been received under control of the control means of the digital camera, the display unit is switched to the mode for displaying the corresponding image.

8. As for **Claims 3, 13, and 22**, Tamura et al. disclose that the predetermined operation for preparation for printing the image includes an operation for selecting an image which is to be printed under control of the control means (In this case, selecting buttons 32b and 32c are used for the selection of items, and determination button 32d is pressed down when each item is determined, see column 9, line 66; it same as an operation for selecting an image which is to be printed.).

9. As for **Claims 4, 14, and 23**, Tamura et al. disclose that the display for notifying the state of the secondary battery (see figures 11(c) and 12) displays the remaining battery power of the secondary battery (information about the residual capacity of batteries; see column 13, line 57),

necessity of charging (information about consumed power, see column 13, line 63), an estimated value of charging time, or the like (information about the operable time, see column 13, line 67), under control of the control means (it is the case main microcomputer 8 generates state information about the state of an electronic camera, see column 13, line 38.).

10. As for **Claim 5**, Tamura et al. disclose an image, which is to be printed, or which is a candidate to be printed, is displayed on a predetermined display unit of the digital camera as a main display with a relatively large size, under control of the control means (The image display section 18 displays a subject when photographing, and in addition, it can display prepared print information when inputting and preparing the print information, column 16, line 60; As shown in figure 9, an image which is to be printed is displayed as a main display with a relatively large size.).

11. As for **Claims 7, 8, 16, 17, 25, and 26**, Tamura et al. disclose, as shown in figures 9 – 11(c), wherein in the event that a display is performed for notifying the state of the secondary battery on the predetermined display unit of the digital camera. However, Tamura et al. do not disclose what happens when the user performs no operation for the digital camera for a predetermined first or second period of time or more. Therefore, Tamura et al. do not disclose when the user performs no operation for the digital camera for a predetermined first or second period of time or more, the display is turned off, under control of the control means.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of providing a digital camera where during a display, when a user performs no operation for the digital camera for a predetermined first or second period of time or more, the display is turned off, under control of the control means of the digital camera are well known and

expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated the above feature into the digital camera, disclosed by Tamura et al., for the advantage of *maximizing the time interval between battery depletion.*

12. **Claims 10, 19, and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al. (US 6,771,896 B2) in view of Hwang et al. (US 6,661,454 B1) in further view of Sobol (US 2002/0071035 A1), as applied above to Claims 1, 11, and 20, respectively, in further view of Higuchi et al. (US 6,163,132).

13. As for **Claims 10, 19, and 28**, Tamura et al. disclose, as stated above, supplying power to the digital camera (100) via the printer (250) and where a display means (35) on the camera displays the state of the secondary battery on a predetermined display unit of the camera (18). Sobol further disclose a digital camera (200) functionally connected to a printer (100), wherein the digital camera has a battery (258) and wherein the battery (258) is charged via electric power supplied by the printer. However, neither Tamura et al. nor Hwang et al. nor Sobol teach wherein upon completion of charging of the secondary battery of the digital camera, a display is performed on the predetermined display unit of the digital camera for notifying the completion of charging.

On other hand, Higuchi et al. also disclose a digital camera having an internal battery capable of being charged. Specifically, Higuchi et al. teach, as shown in figure 1, a charging apparatus (1) built into the video camera and an AC adapter (2) for supplying power to the video camera and the charging apparatus (1). The charging apparatus (1) has a charging circuit (3) for charging a battery cell (20) of battery pack (4) for driving the video camera in carrying it (see

column 2, lines 20 – 39). Furthermore, Higuchi et al. teach, as shown in figure 3 and as stated in column 4 (lines 48 – 60), wherein upon completion of charging of the battery of the camera (indicator 30), a display is performed on a display unit of the camera for notifying the completion of charging.

Hence, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included wherein upon completion of charging of the battery of the camera, a display is performed on a display unit of the camera for notifying the completion of charging (as taught by Higuchi et al.) in the print system (taught in-combination by Tamura et al. in view of Hwang et al. in view of Sobol) for the advantage *allowing a user to readily know a present charge capacity of a battery being charged and a usable duration of an electronic equipment using the battery and, thus, improving the usability for the user* (see Higuchi et al., column 1, lines 43 – 49).

14. **Claims 30 and 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al. (US 6,771,896 B2) in view of Hwang et al. (US 6,661,454 B1) in view of Sobol (US 2002/0071035 A1) in further view of Takahashi et al. (US 6,580,460 B1).

15. For **Claim 30**, Tamura et al. disclose, as shown in figures 9 – 11(c), a print system formed of a digital camera (100) and a printer (250), each including control means for controlling operations thereof (main microcomputer 8/ main microcomputer 222, respectively), functionally connected one to another (see figure 9);

wherein the digital camera (100) includes: image data transmitting means (45) for supplying an image data forming an image which is to be printed with the printer (250), of the

image data acquired by an image-taking means (3; see figure 1), to the printer (see column 16, line 58 – column 17, line 10), under control means thereof and the control means of the printer (main microcomputer 8/222, respectively), communicating with each other; a secondary battery (not shown; although described as "a battery in the electronic camera"), which is a power source thereof, a battery monitoring circuit unit for detecting and monitoring a state of the secondary battery, and supplying the detected state to the control means of the digital camera (see column 17, lines 17 – 31, and figures 10 – 11(c)); display means (35) for displaying a state of the secondary battery on a display unit (35; see column 17, lines 17 – 31 and figures 10 – 11(c)) under control of the control means of the digital camera (main microcomputer 8; see figure 10), and another display unit (18; see figure 9) for displaying an image to be printed, under control of the control means of the digital camera (main microcomputer 8; see figure 10); and an operation unit (32; see figure 9) for receiving operations performed by the user;

and wherein the printer (250) includes: image data receiving means (227) for receiving image data supplied from the digital camera (see column 17, lines 11 – 16), under control means thereof and the control means of the digital camera, communicating with each other; printing means having a configuration wherein an image can be printed based upon the received image data (see column 16, line 58 – column 17, line 10), and electric power supply circuit having a configuration wherein electric power can be supplied to the digital camera (see column 17, lines 8 – 10), under control of the control means thereof.

While Tamura et al. disclose supplying power to the digital camera (100) via the printer (250), as described in column 17 (lines 8 – 10); Tamura et al. do not specify that the battery within the digital camera can be charged by power supplied by the printer. Furthermore, Tamura

et al. do not specify wherein the display unit, which displays the state of the secondary battery, and the display unit, which displays the image to be printed, are the same predetermined display unit and wherein that predetermined display unit is a liquid crystal monitor.

With respect to the predetermined display unit, Hwang et al. also disclose a digital camera that displays a captured image and a battery state indicator. More specifically, Hwang et al. show the digital camera including the image display section (24) in figure 1 and shows details of the image display section (24) in figures 2(a) - 2(c). As clearly shown, in figures 2(a) - 2(c), the image display section (24) is a single predetermined image display unit that both displays the state of the camera battery (top right corner) and a captured image (bottom left corner). Furthermore, Hwang et al. teach that the predetermined display unit (24) may be a liquid crystal monitor (see column 4, lines 8 – 17). A key advantage of the invention, according to Hwang et al., is to provide a digital camera having a simple, easily understood visual indication of the camera status (see column 2, lines 35 – 27).

Thus, based on the above-teachings of Hwang et al., at the time the invention was made it would have been obvious to one with ordinary skill in the art to have merged the battery status indicator (35) and the image display section (18) of Tamura et al. into a single predetermined liquid crystal display unit.

With regard to the charging of the camera battery, Sobol also disclose a digital camera functionally connected to a printer. Specifically, Sobol teaches, as shown in figure 3, a digital camera (200) functionally connected to a printer (100), wherein the digital camera has a battery (258) and wherein the battery (258) is charged via electric power supplied by the printer (see figure 4 and paragraph 40).

Hence, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated wherein the battery within the digital camera can be charged by power supplied by the printer (as taught by Sobol) in the printer system (disclosed by Tamura et al.) for the advantage *reducing interruptions during the transfer of image data from the digital camera to the printer* (see Sobol; paragraph 44).

Tamura et al. in view of Hwang et al. in view of Sobol teach in-combination a print system formed of a digital camera and a printer, wherein the digital camera includes a battery and the battery can be charged by power supplied by the printer and an image data transmitting means for supplying the image data forming an image which is to be printed with the printer. Tamura et al. further disclose where the printer may comprise a thermal head (see Tamura et al.; column 21, lines 11 – 13). However, Tamura et al. in view of Hwang et al. in view Sobol do not teach wherein charging of the secondary battery is stopped during a period in time of the printer being driven.

On the other hand, Takahashi et al. also teach a print system including a digital camera connected to a printer. Specifically, Takahashi et al. teach, as shown in figure 1, a print system including a digital camera (117) connected to a printer (118), where the printer supplies power to the digital camera (117) when the two devices are connected to each other (see column 3, lines 42 – 59). Furthermore, Takahashi et al. teach, as shown in figure 3, that when the printer and camera are connected to each other and the power is turned on for the system (i.e., when there may be printing), the printer supplies power for the whole system (see Steps 302 – 306) and when the printer and camera are connected to each other and the power is turned off for the system (i.e., when there is no printing), the printer supplies power to charge the internal battery

(109) of the camera (see Steps 307 – 310). Additionally, during the printing operation, any camera battery consumption is prevented including battery charge detection and battery charging (see column 14, lines 1 – 18). Therefore, Takahashi et al. teach wherein charging of the secondary battery is stopped during a period in time of the printer being driven.

Hence, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included wherein charging of the camera battery is stopped during a period in time of the printer being drive (as taught by Takahashi et al.) in the print system (taught in-combination by Tamura et al. in view of Hwang et al. in view of Sobol) for the advantage of *reducing camera battery power consumption or short battery during the transfer of data from the camera* (see Takahashi et al.; column 1, lines 39 – 44).

16. For **Claim 31**, Tamura et al. disclose, as shown in figures 9 – 11(c), a digital camera (100) employed for a print system formed of the digital camera (100) and a printer (250), each including control means for controlling operations thereof (main microcomputer 8/ main microcomputer 222, respectively), functionally connected one to another (see figure 9), the digital camera (100) comprising:

image taking means (3; see figure 1) for obtaining image data corresponding to a subject;

image data transmitting means (45) for supplying the image data forming an image which is to be printed with the printer (250), of the image data acquired by the image-taking means (3; see figure 1), to the printer (see column 16, line 58 – column 17, line 10), under control means thereof and the control means of the printer (main microcomputer 8/222, respectively), communicating with each other;

a secondary battery (not shown; although described as "a battery in the electronic camera"), which is a power source thereof,

a battery monitoring circuit unit for detecting and monitoring a state of the secondary battery, and supplying the detected state to the control means of the digital camera (see column 17, lines 17 – 31, and figures 10 – 11(c));

display means (35) for displaying a state of the secondary battery on a display unit (35; see column 17, lines 17 – 31 and figures 10 – 11(c)) under control of the control means of the digital camera (main microcomputer 8; see figure 10), and another display unit (18; see figure 9) for displaying an image to be printed, under control of the control means of the digital camera (main microcomputer 8; see figure 10); and

an operation unit (32; see figure 9) for receiving operations performed by the user.

While Tamura et al. disclose supplying power to the digital camera (100) via the printer (250), as described in column 17 (lines 8 – 10); Tamura et al. do not specify that the battery within the digital camera can be charged by power supplied by the printer. Furthermore, Tamura et al. do not specify wherein the display unit, which displays the state of the secondary battery, and the display unit, which displays the image to be printed, are the same predetermined display unit and wherein that predetermined display unit is a liquid crystal monitor.

With respect to the predetermined display unit, Hwang et al. also disclose a digital camera that displays a captured image and a battery state indicator. More specifically, Hwang et al. show the digital camera including the image display section (24) in figure 1 and shows details of the image display section (24) in figures 2(a) - 2(c). As clearly shown, in figures 2(a) - 2(c), the image display section (24) is a single predetermined image display unit that both displays the

state of the camera battery (top right corner) and a captured image (bottom left corner). Furthermore, Hwang et al. teach that the predetermined display unit (24) may be a liquid crystal monitor (see column 4, lines 8 – 17). A key advantage of the invention, according to Hwang et al., is to provide a digital camera having a simple, easily understood visual indication of the camera status (see column 2, lines 35 – 27).

Thus, based on the above-teachings of Hwang et al., at the time the invention was made it would have been obvious to one with ordinary skill in the art to have merged the battery status indicator (35) and the image display section (18) of Tamura et al. into a single predetermined liquid crystal display unit.

With regard to the charging of the camera battery, Sobol also disclose a digital camera functionally connected to a printer. Specifically, Sobol teaches, as shown in figure 3, a digital camera (200) functionally connected to a printer (100), wherein the digital camera has a battery (258) and wherein the battery (258) is charged via electric power supplied by the printer (see figure 4 and paragraph 40).

Hence, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated wherein the battery within the digital camera can be charged by power supplied by the printer (as taught by Sobol) in the printer system (disclosed by Tamura et al.) for the advantage *reducing interruptions during the transfer of image data from the digital camera to the printer* (see Sobol; paragraph 44).

Tamura et al. in view of Hwang et al. in view of Sobol teach in-combination a print system formed of a digital camera and a printer, wherein the digital camera includes a battery and the battery can be charged by power supplied by the printer and an image data transmitting

means for supplying the image data forming an image which is to be printed with the printer. Tamura et al. further disclose where the printer may comprise a thermal head (see Tamura et al.; column 21, lines 11 – 13). However, Tamura et al. in view of Hwang et al. in view of Sobol do not teach wherein charging of the secondary battery is stopped during a period in time of the printer being driven.

On the other hand, Takahashi et al. also teach a print system including a digital camera connected to a printer. Specifically, Takahashi et al. teach, as shown in figure 1, a print system including a digital camera (117) connected to a printer (118), where the printer supplies power to the digital camera (117) when the two devices are connected to each other (see column 3, lines 42 – 59). Furthermore, Takahashi et al. teach, as shown in figure 3, that when the printer and camera are connected to each other and the power is turned on for the system (i.e., when there may be printing), the printer supplies power for the whole system (see Steps 302 – 306) and when the printer and camera are connected to each other and the power is turned off for the system (i.e., when there is no printing), the printer supplies power to charge the internal battery (109) of the camera (see Steps 307 – 310). Additionally, during the printing operation, any camera battery consumption is prevented including battery charge detection and battery charging (see column 14, lines 1 – 18). Therefore, Takahashi et al. teach wherein charging of the secondary battery is stopped during a period in time of the printer being driven.

Hence, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included wherein charging of the camera battery is stopped during a period in time of the printer being drive (as taught by Takahashi et al.) in the print system (taught in-combination by Tamura et al. in view of Hwang et al. in view of Sobol) for the

advantage of *reducing camera battery power consumption or short battery during the transfer of data from the camera* (see Takahashi et al.; column 1, lines 39 – 44).

Allowable Subject Matter

17. **Claims 6, 9, 15, 18, 24, 27, and 32 – 35** are allowed. The following is a statement of reasons for the indication of allowable subject matter:

The closest prior art discloses a print system including a digital camera connected to a printer wherein the printer supplies power to the digital camera and where a display on the camera displays a state of a camera battery the display, wherein the battery is charged via the power supplied by the printer. The prior art also discloses wherein upon completion of charging of the secondary battery of the digital camera, a display is performed on the predetermined display unit of the digital camera for notifying the completion of charging.

However, for **Claims 6, 15, 24, 32, and 34**, the closest prior art does not teach or fairly suggest a first display arrangement wherein an image which is to be printed, or which is a candidate to be printed, is displayed as a main display with a relatively large size, and a display for notifying the state of the battery is displayed as a sub-display with a relatively small size, on the same screen on the display of the digital camera, and a second display arrangement wherein a display for notifying the state of the battery is displayed as a main display with a relatively large size, and an image which is to be printed, or which is a candidate to be printed, is displayed as a sub-display with a relatively small size, on the same screen, are freely selected by the user, under control of the control means of the digital camera.

And, for **Claims 9, 18, 27, 33, and 35**, the closest prior art does not teach or fairly suggest wherein in a case that a display is performed for an image which is to be printed, or which is a candidate to be printed, on the display of the digital camera, and the user performs no operation for the digital camera for a predetermined second period of time or more, and in the event the battery is not being presently charged, the display is turned off, and on the other hand, in the event that the battery is being presently charged, the display is automatically switched to a display for notifying the state of the battery, and furthermore, in the event that the display is performed for notifying the state of the battery due to the switching, and the user performs no operation for the digital camera for a predetermined first period of time or more, the display is turned off, under control of the control means of the digital camera.

Cited Prior Art

18. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure for the following reasons:

- **US 5,726,556** discloses a charging state displaying apparatus for a camera.
- **US 7,139,027 B1** discloses a camera having a removable display device, wherein the display device displays both a captured image and a battery status indicator.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Sinh Tran can be reached on 571.272.7564. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Justin P. Misleh/
Primary Examiner, Group Art Unit 2622
July 31, 2008